NOTE XIX.

ON THE HABITS OF THE COCOA-NUT CRAB OR PALM THIEF

(*Birgus latro* Fabr.)

BY

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Though the remarkable crab *Birgus latro*, which lives on cocoa-nuts, is widely distributed over the isles of the Indian- and Pacific oceans, and was observed by a great number of travelling naturalists, yet there reigns a good deal of uncertainty about different points of its manner of living. Therefore I think it not superfluous to communicate here the observations kindly given me by my colleague C. Ph. Sluiter, who not only had the opportunity to watch this strange animal during its confinement in his laboratory at Batavia, but also in its native state on the »Duizend eilanden" and at the coast of Bantam. Our ignorance of the bionomy of *Birgus* without doubt must partially be ascribed to its nocturnal habits, for Rumphius [1]) already said: »over dag komt zij weinig uit, schuilende in de holligheden van groote klippen, maar bij nacht, meest bij donkere maan, komt ze te voorschijn om haaren kost te zoeken". This is corroborated by Forbes, who asserts [2]): »it is chiefly nocturnal in its habits, and is not so often seen as the others". Also Semon [3]) writes: »on

1) D'Amboinsche Rariteitkamer, bl. 7.
2) A naturalist's wanderings in the Eastern Archipelago, p. 27.
3) In the Australian Bush, p. 499.

Ambon our dexterous friend principally follows its thievish practice during the night". Therefore Darwin's [1]) assertion »the Birgos is diurnal in its habits", that found its way in many popular handbooks, must be considered to be founded on a mistake and is somewhat in contradiction with his own words that directly follow »but every night it is said to pay a visit to the sea". About these reiterated visits of our crab to the sea, and the reason why this happens, the authors are neither very unanimous; according to some of them it is »for cooling its thirst", according to others for »moistening its gills" or »deposing its eggs". Moseley [2]) f. i. was informed by an intelligent native at Zamboanga that »the crabs went down to the sea occasionally to drink". Semon, however, writes: »from time to time it will repair to the sea, a habit attributed by the people to its desire of moistening its gills. Personally, I consider this motive as very improbable. The gills are very small, but the walls of the cavity containing them are covered with a rich vascular network, and act as a sort of lung. Far more likely does it seem that the crab's periodical visits to the sea are simply for the deposition of eggs, etc.". On the contrary Rumphius asserts: »Zij woont in de holle steenklippen, doch altijd op het land, zonder ooit in 't water te komen" and farther on »de bovenstaande beurskrabben moet men noch in zout, noch in versch water laten komen, want daar in sterven ze straks". But the greatest disagreement reigns among the naturalists about the question, whether the crab possesses the ability of climbing upon trees. For Rumphius tells us: »zij beklimt de kalappusboomen, welker nooten zij afknijpt, en de afgeworpene onder den boom naspeurt, enz." and in agreement herewith Forbes writes: »it has a habit of climbing the cocoa-nut palms, but whether to take the air or for temporary lodging is doubtful; it does not rob the

1) Journal of researches into the Geology and Nat. History etc., 1839, p. 551.
2) Notes by a Naturalist on the „Challenger", p. 403.

trees, however, as has been charged against it, since it feeds only on fruits that have fallen". Darwin however states: »I very much doubt the possibility of this; but with the *Pandanus* the task would be very much easier". Semon also doubtfully asserts: »this statement, appearing highly improbable, has met with much contradiction, and has never yet been corroborated by the observation of a white man". Now let us see, what Dr. Sluiter writes about the animal: »*Birgus latro* is a true land-crab; in sea-water it will soon die, as already stated by Rumphius. In my laboratory at Batavia I had a cage for it, and the whole day over it remained quietly in the darkest corner of it. At night it became lively, came out of its cage and crawled around at its ease, but especially it was fond of climbing against the legs of the table, pillars etc. Often when I sat working at my table his lordship appeared with its claws upon the table-board, but it could not succeed in passing the border. The large pendoppo, which I used as a laboratory, was supported by iron pillars and had a height of about 5 M. It much liked to climb to the top of these pillars, which were 7 à 8 cm. in diameter, clinging to them with its legs, as well as along the narrow board to which were affixed the glass-tubes, destined for aerating my aquariums. By day-time I never saw it eat, at night however it ate cocoa-nuts eagerly. I gave it pieces without shell, from which it picked the white flesh. Whether it can open old nuts, I don't know. When I gave it old cocoa-nuts it fumbled and pulled at the bark, but I never saw it open one. Quite young ones however it could open easily. It took also stale bread, but animal food it despised absolutely. So much about its behavior in confinement. On the »Duizend eilanden" and at the coast of Bantam I often saw it. By day-time it sits among and under the roots of Mangrove-trees, but its favoured place is under dry coral-blocks, laying on the shore, often rather far from the sea. At night it comes out of its hiding-place and rather late generally,

and I have seen it climbing even to the top of Cocoa-palms and Mangrove-trees, of 20 M. height, so I am quite sure of the fact. I never saw what it was doing there in the top, but according to my experience with my pet, I have no doubt its seeking there young nuts, which it opens and eats."

Summary: *Birgus latro* is nocturnal in its habits; seldom or never it goes into the sea; it climbs trees.

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